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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): SCS-550-540

Application Number	Filed
10/807,499	March 24, 2004
First Named Inventor: BUTCHER	
Art Unit: 2183	Examiner: A. Li

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

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This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ Applicant/Inventor

☐ Assignee of record of the entire interest. See 37 C.F.R. § 3.71. Statement under 37 C.F.R. § 3.73(b) is enclosed. (Form PTO/SB/96)

☒ Attorney or agent of record 27,393 (Reg. No.)

☐ Attorney or agent acting under 37CFR 1.34.
Registration number if acting under 37 C.F.R. § 1.34 _____

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April 3, 2008
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.*

☒ *Total of 1 form/s are submitted.

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STATEMENT OF ARGUMENTS IN SUPPORT OF PRE-APPEAL BRIEF REQUEST FOR REVIEW

The following listing of clear errors in the Examiner's rejection and his failure to identify essential elements necessary for a *prima facie* basis of rejection is responsive to the Final Official Action mailed October 5, 2007 (Paper No. 20070930). In the Advisory Action mailed March 28, 2008 (Paper No. 20080320) all issues have been resolved except for the obviousness rejections. The following discussion of Examiner errors are addressed to independent claim 1, but is similarly applicable to independent claims 13, 25 and 37 and all dependent claims.

A. The Examiner's Various Admissions Are Appreciated

The Examiner admits that Ishizaki does not teach the "copying, in dependence upon . . . ;" or the "determining a target branch address . . . ;" steps for the decoder in claim 1 (Final, page 6, section 13, first sentence). Also, she admits that Ishizaki fails to disclose the claimed specifics "on how exception handling affects the program counter" (page 6, section 13, second sentence) which is taken as an admission of Ishizaki's failure to teach the claimed "branching . . . in dependence upon said comparison." These admissions are appreciated.

B. Error #1 – The Examiner's unsupported allegation that Hennessey teaches the claimed "copying" and "determining" steps is incorrect

Hennessy at page 411, lines 22-25, specifically states that "[t]he basic action that the machine must perform when an exception occurs is to save the address of the offending instruction in the exception program counter (EPC) and then transfer control to the operating system." In Hennessy, the program counter value (address of the offending instruction) is copied to an exception program counter not in response to a comparison result (the claimed

"comparison" as required in Applicant's claim 1), but rather, in response to an exception. Hence, Hennessey cannot teach the claimed "copying, in dependence upon a result of said comparison, . . ." or the "branching . . . in dependence upon a result of said comparison."

Quite clearly, Hennessy does not teach the subject matter of claim 1, sections (ii) or (iii).

C. Error #2 – The Examiner fails to appreciate that the combination of Ishizake and Hennessy would not disclose all claim 1 features

As noted above in Section A, the Examiner admits that the claimed features of "copying," "determining" and "branching" are missing from Ishizaki. Also as noted above in Section B, Hennessy cannot teach the "copying" or "branching" features because it does not perform the "comparison." As a result, even if the Ishizake and Hennessy references were combined, they fail to teach the features in the independent claims.

Accordingly, there can be no *prima facie* case of obviousness under 35 USC §103 with respect to independent claims 1, 13, 25 & 37 or claims dependent thereon.

D. Error #3 – The Examiner fails to provide any reason or motivation for combining references

In its recent decision, the U.S. Supreme Court in *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (April 2007), held that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness."

The only rationale is on page 7 of the Final where the Examiner merely concludes that "it would be obvious . . . to incorporate copying the program value and determining the branch target address from the program counter value to ensure the exception handler takes the appropriate action to report and correct the error and restart program execution when the

exception is handled." This is precisely the sort of "conclusory" statement that the Supreme court has held is insufficient to establish a case of obviousness.

E. Error #4 – The Examiner fails to recognize that she has misunderstood the Hennessy reference

The Examiner contends that it would be obvious to one of ordinary skill in the art in view of Hennessy "to ensure the exception handler takes the appropriate action to report and correct the error and restart program execution when the exception is handled." (page 7, last sentence in section 13). While not suggested in Hennessy, this functionality is disclosed in Ishizaki which is directed to achieving this result (but in a very different manner from Applicants' independent claims). Ishizaki teaches at column 5, lines 51-57, that "when a condition described in the tw/twi [compare and branch] instructions is established, and the processing branches to the exception handler, instructions . . . are examined to detect the type of exception that has occurred."

Thus, the Examiner has confused that which is taught by Ishizaki (in a completely different context) with that which is not suggested by Hennessy.

F. Error #5 – The Examiner fails to recognize that Ishizaki teaches away from the claimed invention

In view of the above, Ishizaki (and not Hennessy) clearly teaches that the instruction (that gave rise to the exception) is decoded to determine the cause of the exception. In this way, Ishizaki is able to "report and correct the error." This teaching is central to the operation of the Ishizaki device and one of ordinary skill in the art would not contemplate replacing these critical features without some good reason or strong motivation. These features of Ishizaki clearly would lead one of ordinary skill in the art away from "copying, in dependence upon a result of said comparison, a program counter value to a third register" as in claim 1, section (ii) and

"determining a target branch address from a pre-program stored value and said program counter value" as recited in sub-section (iii) of claim 1.

Thus, Ishizaki would clearly lead one of ordinary skill in the art away from the claims "copying" and "branching" steps that both depend upon the "result of said comparison" and thus any *prima facie* case of obviousness had been rebutted by the adverse teaching.

G. Error #6 – The Examiner fails to recognize that Ishizaki and Hennessy are mutually incompatible

It is possible that the Patent Office confusion is because the Examiner has not appreciated that Ishizaki and Hennessy relate to the handling of two very different types of exceptions. Ishizaki, like the present invention, relates to the handling of "**software exceptions**," especially where the software program itself handles any events which disrupt the normal flow of the execution of the program. Hennessy relates to the handling of **CPU exceptions** whereby an unexpected event within the processor is analyzed and dealt with by the operating system.

The inherent incompatibility between the Ishizaki and Hennessy references is clearly highlighted by the definition of "exceptions and interrupts" given on page 410, lines 24 and 25 of Hennessy which he defines as "events other than branches or jumps that change the flow of instruction execution." This is in clear conflict with the Ishizaki reference which specifically deals with an "exception instruction" which compares values and then branches to an exception handler in dependence on the result of the comparison.

The Examiner's only response, in the Advisory Action, is to allege the Hennessy quote is "taken out of context" but she does not evidence and support for this position. Importantly, the Examiner does admit that Hennessy's exception is "an unexpected event **from within the**

processor" (the CPU) and this is completely compatible with Appellant's position that Hennessy relates to **CPU exceptions** and not Ishizaki's **software exceptions**.

The Examiner, in the Advisory Action and in spite of her admission above, continues to assert that Hennessy relates to software exceptions. However, she mistakenly asserts that MIPS is a software language (when in fact it is a RISC architecture – see the Hennessy comparison of architectures on page 410, line 32) and doesn't suggest a software language. The mutual incompatibility of the two references teachings rebuts any *prima facie* case of obviousness.

SUMMARY

In the Final Rejection, the Examiner admits that at least three claimed aspects of the current invention are not disclosed in the Ishizaki reference, and fails to disclose how or why she believes them to be disclosed in the Hennessy reference. Accordingly, even if the references were combined, there can be no *prima facie* case of obviousness. Additionally, the Examiner fails to provide any "explicit" retionale for picking and choosing elements from the prior art and then combining them in the manner of the independent claims. She further appears to disregard both Ishizaki's "teaching away" and the mutual incompatibility between Ishizaki and Hennessy, both of which rebut any case of obviousness under 35 USC §103. Hennessy, which deals with **CPU exceptions** as events other than branches or jumps is not combinable with Ishizaki which deals with **branch instructions**.

As a result of the above, there is simply no support for the rejection of Applicants' independent claims 1, 13, 25 and 37 or claims dependent thereon under 35 USC §103. Applicants respectfully request that the Pre-Appeal Panel find that the application is allowed on the existing claims and prosecution on the merits should be closed.